ADDENDUM TO THE MITIGATED NEGATIVE DECLARATION FOR THE SOLEDAD WIND ENERGY GENERATION PROJECT

I. OVERVIEW

This addendum to the 2013 Mitigated Negative Declaration (MND) for the Soledad Wind Energy Generation Project documents that the environmental analysis contained in the MND adequately addresses the potential physical impacts associated with implementation of the project as currently proposed and that none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent negative declaration have occurred. Although minor modifications have been made to the project, including an increased rotor radius and overall height of the turbine, the proposed use and area of disturbance remain unchanged from the approved turbine. The modifications associated with the new turbine do not trigger any new significant environmental impacts or a substantial increase in the severity of environmental impacts that were identified in the City of Soledad Wind Energy Generation Project Mitigated Negative Declaration (SCH No. 2013031035).

II. BACKGROUND

The City of Soledad Public Works Department, acting as project applicant, owns and operates the Water Reclamation Facility (WRF).

The WRF currently relies on energy from the electric power grid, which is operated and maintained by Pacific Gas and Electric (PG&E). The proposed project involves the installation of an electricity-generating wind turbine at the WRF for the purpose of offsetting electricity usage required by WRF operations. Any excess power generated would be fed back into the electric power grid in a contractual net-metering relationship with PG&E, which is discussed in further detail below.

On May 9, 2013, the City of Soledad certified the MND and approved the installation of a wind turbine at the WRF. Since certification of the MND, the City has had to revise the project details to allow installation of a different wind turbine model that has different technical specifications from the model previously described and analyzed in the MND. (The originally analyzed turbine model is no longer in production.)

III. AMENDED PROJECT

The change in the project would result in the installation and operation of a slightly larger 1.6 megawatt versus 1.5 megawatt (MW) electricity-generating wind turbine at the City's WRF. The purpose of the turbine is to offset electricity usage required at the WRF. The following summary is of the technical specifications of the wind turbine model currently proposed for installation on the project site, followed by a comparison with the model approved for installation at the WRF. Other than generating power, height, and diameter of the rotor blades, all other aspects of the project (i.e., foundation and fencing, obstruction lighting and marking, grading/trenching, construction phasing, operations, proposed measures for avoiding impacts to birds and bats, and best management practice operational protocols for birds and bats) are identical to the approved project.

New Turbine Model Specifications

The new wind turbine would be a GE Energy 1.6$_{XLE}$ 50 Hz/60 Hz. This model is a three-bladed, upwind, horizontal-axis wind turbine with a rotor diameter of approximately 271 feet (82.5 meters). The turbine rotor

and nacelle are mounted on top of a tubular tower giving a rotor hub height of approximately 328 feet (100 meters) for a total structural height of approximately 463 feet (141 meters). The machine employs active yaw control (designed to steer the machine with respect to the wind direction), active blade pitch control (designed to regulate turbine rotor speed), and a generator/power electronic converter system.

The turbine features a distributed drive train design wherein the major drive train components, including the main shaft bearings, gearbox, generator, yaw drives, and control panel, are attached to a bedplate.

Rotor and Blades

The rotor diameter would be 271 feet (82.5 meters), resulting in a swept area of 57,544 square feet (5,346 square meters), and is designed to operate between 9.8 and 18.7 revolutions per minute (rpm). Rotor speed is regulated by a combination of blade pitch angle adjustment and generator/converter torque control. The rotor spins in a clockwise direction under normal operating conditions when viewed from an upwind location.

The blades are shaped like an airfoil (wing), which transitions along the blade span with the thicker section located in-board toward the blade root (hub) and gradually tapering to thinner cross sections out toward the blade tip.

Generator

The generator would be a doubly-fed induction type. This generator type meets protection class requirements of the international standard IP 54 (totally closed). The generator would be mounted to the bedplate, and the mounting would be designed so as to reduce vibration and noise transfer to the bedplate.

Nacelle

The nacelle would house the main components of the wind turbine generator. Access from the tower into the nacelle would be through the bottom of the nacelle. The nacelle will be ventilated. It will be illuminated with electric light. A hatch at the front end of the nacelle will provide access to the blades and hub. The rotor can be secured in place with a rotor lock.

Yaw System

A roller bearing attached between the nacelle and tower facilitates yaw motion. Planetary yaw drives (with brakes that engage when the drive is disabled) mesh with the outside gear of the yaw bearing and steer the machine to track the wind in yaw. The automatic yaw brakes engage in order to prevent the yaw drives from seeing peak loads from any turbulent wind.

The controller activates the yaw drives to align the nacelle to the average wind direction based on the wind vane sensor mounted on top of the nacelle.

A cable twist sensor provides a record of nacelle yaw position and cable twisting. After the sensor detects excessive rotation in one direction, the controller automatically brings the rotor to a complete stop, untwists the cable by counter yawing of the nacelle, and restarts the wind turbine.

Power Converter

The proposed wind turbine would use a power converter system that consists of a converter on the rotor side, a DC intermediate circuit, and a power inverter on the grid side.

The converter system consists of a power module and the associated electrical equipment. Variable output frequency of the converter allows operation of the generator.

Tower

The proposed turbine will be mounted on top of a tubular tower, putting the wind rotor hub height at 328 feet (100 meters). The tubular tower will be manufactured in sections from steel plate. Access to the turbine is through a lockable steel door at the base of the tower. Service platforms would be provided. Access to the nacelle is provided by a ladder with a fall-arresting safety system. Interior lights will be installed at critical points from the base of the tower to the tower top.

COMPARISON TO APPROVED TURBINE

The table below provides a comparison of the technical specifications of the approved wind turbine and the new turbine.

Wind Turbine Specification Comparison

	Approved Turbine	New Turbine
Tower Height (feet)	213.3	328.0
Rotor Radius (feet)	126.3	135.3
Overall Height (feet)	339.6	463.3
Difference in Total Height (feet)	–	123.7
Percentage Difference in Total Height	–	36%
Power Generation	1.5 MW	1.6 MW

IV. LEGAL STANDARDS

CEQA Guidelines Section 15162 specifies the type of documentation required when changes are proposed to a project. CEQA Guidelines Section 15162 states:

(a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

(c) Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

(d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section 15087 or Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.

Section 15164 of the CEQA Guidelines includes situations when a subsequent or supplemental EIR is not required. CEQA Guidelines Section15164 states:

(a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.

(b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.

(c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.

(d) The decision making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.

(e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

V. ANALYSIS

The location and footprint of the proposed wind turbine would remain identical to the approved turbine. In addition, there would be no change to the proposed construction schedule and activities or to the operational phase of the project, which would consist of only routine maintenance activities. Therefore, all project impacts related to location, ground disturbance, and construction and operational activities (i.e., agriculture and forestry resources, air quality, cultural resources, geology/soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation/traffic, utilities/service systems, and mandatory findings of significance) would remain less than significant with incorporation of the mitigation measures provided in the MND and approved as conditions of the project. However, as the height of the wind turbine, and the increase in rotor radius, directly relates to its potential impacts to both aesthetics and biological resources, these issues are discussed in greater detail below.

AESTHETICS

As described on pages 29 and 30 of the MND, the approved wind turbine will be a permanent, fixed structure that will be visible from Highway 101 and from surrounding areas with views of the site. However, the turbine is not expected to substantially degrade the existing visual character or quality of the site or its surroundings, including scenic vistas, because there are already existing visual intrusions in the project area and because the project is of such a limited scale (i.e., one turbine in a previously disturbed area). Further, the distance of the project site from major public viewsheds, such as Highway 101, would reduce the scale and prominence of the turbine.

The new wind turbine would have a greater overall height and rotor diameter, increasing its visibility. Figures 1 through 6 provide simulations of the project site from surrounding viewpoints and the new wind turbine. Similar to the approved turbine, there will be a single tower installed in a previously disturbed area with numerous existing visual intrusions including utility poles, trees, structures, and a telecommunication tower. As with the approved turbine, the new turbine would serve as a new visual element in the area, but would not significantly obstruct the viewshed of the Sierra de Salinas Range or other scenic aspects of the area. Therefore, even with the increased height and rotor diameter as shown in the above table, the project would not substantially adversely affect or block views of the area or degrade the visual character or quality of the site.

As described on page 41 of the MND, the wind turbine would likely feature paint markings and/or lighting as required by the Federal Aviation Administration (FAA) for aircraft safety. Such paint markings and lighting are required for any structure that exceeds 200 feet above ground level and would therefore be required regardless of the increased overall turbine height now proposed. The increased overall height could make the paint markings or lighting more prominent in the sky and from adjacent sites. However, implementation of mitigation measure MM 1-1, as provided on page 41 of the MND, will minimize aesthetics impacts related to the paint markings and lighting to a less than significant level through directional lighting and restrictions on non-safety-related lighting or markings. This approach remains valid for the new turbine, as it materially affects the visibility of the structure by restricting lighting and markings. As such, both the mitigation measure and the conclusion of less than significant are appropriate. No additional analysis or mitigation is required to address aesthetics impacts.

BIOLOGICAL RESOURCES

As described on pages 65 through 68 of the MND, although the project study area (PSA) does not provide ideal foraging or nesting habitat, avian species including raptors were observed in the project study area. Direct impacts to these species could include mortalities associated with collisions with the rotor blades. The design and location of the turbine, which will remain the same as previously analyzed, are expected to minimize such impacts as no foraging or nesting habitat is present around the site and no perches are provided that might attract birds or raptors. As described on page 67 of the MND, the risk of raptor mortality has been absent to relatively low at all newer generation wind plants in the United States. These wind plants are made up of fewer larger, slower-moving turbines (greater than 40-meter rotor diameter, with less than 30 blade rotations per minute). The currently proposed turbine is of the same design as that previously analyzed and would not create a greater risk of raptor mortality. With implementation of the Measures for Avoiding Impacts to Birds and Bats and the Best Management Practice Operational Protocols for Birds and Bats provided as part of the project description (see pages 18 and 19 of the MND) as well as mitigation measure MM 4-1, as provided on page 68 of the MND, the project would not result in significant impacts to bird or raptor populations that would cause a bird or raptor species population to drop below self-sustaining levels. As evidenced in the Biological Survey Report prepared for the project, recorded California condor behavior dictates that condors in the vicinity of the project site would be expected to be flying overhead between surrounding mountain ranges at heights well above the height of the proposed wind turbine. There have been no recorded/documented occurrences of this species below 600 feet in the last six years, and this occurrence was substantially south of the project site near King City.

As described on pages 68 through 70 of the MND, there is potential for bats to be injured or killed by the moving turbine blades during project operation. Pallid bats fly low and are not anticipated to be struck by the turbine blades. The new turbine tower is 123.7 feet taller than the approved turbine, while the increase in rotor radius is only 9 feet. This increases the distance from the rotor tip to the ground by over 100 feet. The increase in height will reduce the potential risk to pallid bats when compared to the approved turbine. The increased overall height and rotor diameter of the currently proposed turbine would not increase potential risks to bats. Any impacts would be further minimized through implementation of mitigation measure MM 4-2, as provided on pages 69 and 70 of the MND, which requires removal of some vegetation, placement away from riparian areas, and monitoring of bat mortality. The approved mitigation strategy remains valid for the new turbine, as it directly affects prey of the bats and provides both monitoring and performance standards for operation of the turbine. No additional analysis or mitigation is required to address biological resources impacts (see also correspondence dated May 3, 2013, from Joyce Hunting [PMC Biological Resources Director] to Donald Wilcox).

VI. CONCLUSION

The City of Soledad, acting as the lead agency, determined that an addendum is the appropriate environmental document under CEQA, because only minor technical changes are proposed to the previously analyzed project and there would be no new significant environmental effects or substantial increases in the severity of significant effects previously identified in the certified MND.

The location, footprint, construction plan, and maintenance needs of the new wind turbine will remain unchanged; therefore, the certified MND provides adequate analysis of ground-disturbing and operational impacts. The proposed change in overall height and rotor diameter of the turbine will not substantially increase the severity of the significant effects previously identified in the MND related to aesthetics or biological

resources. With implementation of the mitigation measures provided in the MND, the proposed project will not result in any significant impact and therefore no additional analysis or mitigation is required.

Photo 3

Photo 4

Figure 2
Site Photos

PMC®

Photo 1

Photo 2

Figure 1
Site Photos

PMC®

T:_CS\Work\Soledad, City of\Soledad WWTP Wind Energy 28-0090-001-1002-2\Figures - Site Photos

Photo 5

Photo 6

Figure 3
Site Photos

PMC®